

Table B.2. Major Disturbances and Unusual Occurrences, Year-to-Date through December 2009

Date	NERC Region	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
January							
1/5/2009	TRE	5:00 a.m.	North and Central Texas	Severe Storm	N/A	157,019	6:00 p.m. January 06
1/7/2009	SERC	5:00 p.m.	Piedmont of North and South Carolina	High Winds	300	70,000	8:05 p.m. January 07
1/8/2009	FRCC	11:46 p.m.	Florida Keys	Transmission Equipment Failure	55	31,000	11:25 a.m. January 09
1/17/2009	RFC	8:00 a.m.	PJM, Indiana	Fuel Supply Deficiency	N/A	N/A	8:00 a.m. January 25
1/22/2009	RFC	4:00 p.m.	Crawfordsville, Indiana	Shed Load	50	9,700	5:05 p.m. January 22
1/27/2009	RFC	5:00 a.m.	State of Kentucky	Ice Storm	N/A	383,000	4:30 p.m. January 29
1/27/2009	SERC	5:03 a.m.	Central and Eastern Kentucky	Ice Storm	600	190,000	5:15 p.m. January 31
1/27/2009	SERC	7:10 a.m.	Western Kentucky and Southern Indiana	Ice Storm	350	3	7:30 p.m. February 04
1/27/2009	SERC	11:00 a.m.	South Central and Southeast Missouri	Winter Storm	200	62,500	6:00 p.m. January 30
1/27/2009	SERC	1:46 p.m.	Northern Arkansas	Ice Storm	N/A	111,818	5:00 p.m. February 03
1/27/2009	RFC	3:43 p.m.	CSWS-AEP West	Ice/Snow Storm	N/A	59,402	9:00 a.m. January 29
1/27/2009	SERC	9:00 p.m.	Northern Arkansas	Ice Storm	600	215,700	6:00 a.m. January 29
1/27/2009	SERC	9:45 p.m.	TVA Service Territory	Ice Storm	850	1	10:17 p.m. January 27
1/28/2009	RFC	12:10 a.m.	East Central Missouri	Winter Storm	300	1	9:20 p.m. January 30
1/28/2009	RFC	3:00 a.m.	Illinois, Indiana, Ohio and Kentucky	Winter Storm	N/A	230,300	8:03 a.m. February 13
1/28/2009	RFC	4:00 a.m.	City of Henderson, Kentucky and Portions of Henderson County, Kentucky	Ice Storm	21	3,500	5:00 p.m. February 07
1/28/2009	RFC	6:00 a.m.	Indiana, Evansville, Metro Area	Ice Storm	506	75,000	6:00 p.m. February 05
1/28/2009	RFC	7:50 a.m.	Southern Indiana	Ice/Snow Storm	N/A	53,700	8:03 a.m. February 13
1/28/2009	SERC	9:00 a.m.	Northeast Tennessee and Southwest Kentucky	Ice Storm	N/A	109,527	8:00 a.m. February 05
1/28/2009	RFC	10:00 a.m.	Northern Kentucky and Southwest Ohio	Ice/Snow Storm	N/A	53,600	9:20 p.m. January 30
February							
2/11/2009	TRE	2:30 a.m.	Houston, Texas	High Winds	350	64,801	12:00 p.m. February 11
2/11/2009	RFC	6:00 p.m.	Kentucky, West Virginia and Ohio	Severe Thunderstorms	N/A	279,813	5:00 p.m. February 13
2/11/2009	RFC	6:18 p.m.	Maryland, Virginia, West Virginia and Pennsylvania	Severe Thunderstorms	N/A	374,644	8:10 p.m. February 16

2/11/2009	RFC	7:00 p.m.	State of Kentucky	Severe Thunderstorms	N/A	78,000	11:00 a.m. February 12
2/11/2009	RFC	9:00 p.m.	Northern Kentucky and Southwest Ohio	Severe Thunderstorms	350	63,000	12:00 p.m. February 12
2/12/2009	RFC	2:30 a.m.	Central and Eastern Ohio	High Winds	168	184,000	6:00 a.m. February 12
2/12/2009	RFC	8:00 a.m.	Western and North Eastern Pennsylvania	High Winds	130	132,000	10:00 p.m. February 15
2/13/2009	RFC	2:30 a.m.	Central and Eastern Ohio	High Winds	168	184,000	3:00 a.m. February 15
2/23/2009	NPCC	2:38 a.m.	Southern Central and Western Maine	Ice/Snow Storm	N/A	131,000	1:46 p.m. February 24

March

3/1/2009	WECC	12:15 a.m.	City of El Paso, Texas, County of El Paso	Transmission Equipment Failure	250	132,000	3:00 a.m. March 01
3/1/2009	SERC	4:00 p.m.	Southern Balancing Area	Severe Weather	75	60,000	11:25 p.m. March 01
3/1/2009	SERC	8:54 p.m.	Duke Energy Carolinas Balance Authority	Ice/Snow Storm	1,000	180,000	4:06 p.m. March 03
3/1/2009	SERC	10:00 p.m.	Central Virginia - Spotsylvania County	Winter Storm	210	217,000	6:00 p.m. March 03
3/3/2009	RFC	6:48 a.m.	Southwest Michigan	Transformer Faulted/Unit Tripped	378	N/A	6:05 a.m. April 26

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Date	NERC Region	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
3/3/2009	REC	10:00 p.m.	Roanoke, Virginia	Made Public Appeals	350	0	8:17 p.m. March 04
3/8/2009	WECC	10:16 p.m.	San Francisco Bay Area, California	Unit Shut Down	150	-	11:45 p.m. March 08
April							
4/6/2009	RFC	1:00 a.m.	Michigan, Lower Peninsula	Winter Storm	75	70,793	12:00 p.m. April 08
4/10/2009	SERC	10:00 p.m.	Alabama and Georgia	Severe Thunderstorms	162	56,679	2:30 a.m. April 11
4/23/2009	WECC	12:00 a.m.	Restricted Hydro Electric Capability	Fuel Supply Deficiency	-	-	Ongoing
4/23/2009	WECC	4:25 p.m.	Skagit County, Washington	Transmission Tripped	244	93,300	12:29 a.m. April 24
4/23/2009	WECC	5:54 p.m.	Communities of Elsinore, Hemet, Moreno Valley, Perris, San Jacinto and Temecula in the southeastern area of Riverside County in California	Substation Load Interruption	512	280,000	7:58 p.m. April 23
4/24/2009	SERC	11:09 a.m.	Ruston, Louisiana	Complete Electric System Failure	32	11,000	11:21 a.m. April 24
4/25/2009	RFC	2:30 p.m.	Western Region of Service Territory	High Winds/Rain	N/A	125,000	1:00 a.m. April 29

4/27/2009	TRE	3:30 p.m.	Greater Houston/Galveston Area	High Winds	176	158,000	11:30 a.m. April 28
May							
5/8/2009	SERC	7:30 a.m.	SW Missouri	Severe Thunderstorm	266	83,000	9:00 a.m. May 08
5/8/2009	SERC	1:30 p.m.	Southern Illinois	Severe Thunderstorm	300	68,800	11:20 p.m. May 14
5/29/2009	SERC	9:05 a.m.	Henderson County, Kentucky	Transmission Equipment Failure	342	1	7:57 p.m. May 29
June							
6/5/2009	WECC	1:38 p.m.	East of Fresno California	Electrical System Separation	1	70	8:18 p.m. June 05
6/9/2009	RFC	5:25 p.m.	Central Maryland	Severe Thunderstorms	60	85,091	5:00 a.m. June 11
6/10/2009	TRE	6:00 p.m.	North and Central Texas	Severe Storms	N/A	800,000	10:00 a.m. June 14
6/12/2009	SERC	4:37 p.m.	Chattanooga, Tennessee	Severe Storm	860	136,000	6:53 p.m. June 12
6/12/2009	SERC	5:45 p.m.	Arkansas, North Mississippi	Severe Thunderstorms	N/A	81,645	11:59 p.m. June 15
6/12/2009	SERC	10:00 p.m.	Georgia	Severe Thunderstorm	290	102,000	6:00 p.m. June 13
6/16/2009	WECC	11:00 p.m.	A.D. Edmonston Pumping Plant	Fuel Supply Deficiency	300	0	2:00 a.m. June 17
6/19/2009	RFC	12:01 a.m.	Michigan Lower Peninsula	Severe Storm	75	99,000	11:00 p.m. June 21
6/19/2009	SERC	1:00 p.m.	The Entire ComEd Service Territory	Severe Storm	N/A	245,000	11:59 p.m. June 19
6/24/2009	SERC	1:30 p.m.	Southwest Louisiana	Made Public Appeals	N/A	N/A	10:00 p.m. June 24
6/25/2009	TRE	3:16 p.m.	ERCOT Region	Made Public Appeals	N/A	N/A	7:00 p.m. June 25
6/25/2009	RFC	3:30 p.m.	Western Region of Service Territory	High Winds/Rain	N/A	118,000	8:00 p.m. June 28
6/26/2009	RFC	1:00 a.m.	Southwest Ohio, Northern Kentucky, Central and Southern Indiana	Severe Thunderstorms	327	85,000	9:00 a.m. June 27
6/26/2009	NPCC	5:00 p.m.	Central Connecticut	Severe Thunderstorms	N/A	50,752	9:00 a.m. June 29
July							
7/2/2009	NPCC	10:44 p.m.	Northern Maine	Electrical System Separation	0	0	1:25 a.m. July 03
7/7/2009	TRE	3:30 p.m.	San Antonio, Texas	Made Public Appeals	N/A	N/A	7:00 p.m. July 07
7/8/2009	TRE	1:30 p.m.	ERCOT Region	Made Public Appeals	N/A	N/A	7:00 p.m. July 08
7/14/2009	SPP	1:00 p.m.	AEP SWEPCO/Louisiana Area	Made Public Appeals	N/A	N/A	6:00 p.m. July 14

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Date	NERC Region	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected [1]	Restoration Date/Time
7/15/2009	SPP	1:00 p.m.	AEP SWEPCO/Louisiana Area	Made Public Appeals	N/A	N/A	6:00 p.m. July 15

7/16/2009	SPP	1:00 p.m.	AEP SWEPCO/Louisiana Area	Made Public Appeals	N/A	N/A 6:00 p.m. July 16
7/18/2009	TRE	7:00 p.m.	Houston/Galveston Area	Thunderstorms	51	73,000 9:00 p.m. July 19
7/20/2009	WECC	9:50 p.m.	Metro Denver (Jefferson, Adams, and Arapahoe Counties)	Severe Thunderstorm	150	86,058 7:00 p.m. July 22
7/21/2009	WECC	5:34 a.m.	San Francisco Bay Area, California	Unit Tripped	136	1 8:43 a.m. July 21
7/27/2009	SERC	5:05 a.m.	Chattanooga, Tennessee	Failure of Computer Hardware Used for Monitoring	N/A	N/A 5:47 a.m. July 27
7/28/2009	WECC	8:18 p.m.	Salt Lake City Utah and Northern Utah	Loss of Part of Substation	316	N/A 8:33 p.m. July 28
August						
8/2/2009	RFC	2:17 a.m.	Chester, Montgomery, Delaware, Philadelphia and Bucks Counties, Pennsylvania	Highwinds	N/A	70,264 1:09 p.m. August 03
8/4/2009	RFC	1:45 p.m.	Northern Kentucky, Southwest Ohio and Central and South Indiana	Thunderstorms	50	63,700 9:00 p.m. August 08
8/5/2009	TRE	3:00 p.m.	ERCOT Region	Made Public Appeals	N/A	N/A 7:00 p.m. August 05
8/7/2009	RFC	11:00 p.m.	Western Region of Service Territory	High Winds and Rain	N/A	137,000 10:00 p.m. August 11
8/9/2009	RFC	7:31 p.m.	Michigan, Lower Peninsula	Severe Thunderstorms	N/A	58,156 9:59 a.m. August 10
8/12/2009	TRE	6:25 p.m.	South Houston Service Area	Thunderstorms	491	73,000 10:00 a.m. August 12
8/21/2009	TRE	7:00 p.m.	Houston Metropolitan Service Area	Thunderstorms	544	80,000 8:00 a.m. August 22
8/29/2009	MRO	11:00 a.m.	Western South Dakota	Electrical System Separation	373	18 2:01 p.m. August 29
8/29/2009	RFC	10:54 p.m.	Western South Dakota	Electrical System Separation	84	0 11:53 p.m. August 29
8/31/2009	WECC	10:31 a.m.	City of Los Angeles, California	Made Public Appeals	N/A	N/A 12:00 a.m. August 31
October						
10/7/2009	RFC	5:45 a.m.	Southeast Michigan	Severe Storms	N/A	75,000 11:00 p.m. October 09
10/9/2009	WECC	6:30 p.m.	Central Valley, CA (Bakersfield, CA)	Transmission System Interruption	180	N/A 7:10 p.m. October 09
10/9/2009	SERC	10:45 p.m.	Arkansas and North Louisiana	Winter Storm	N/A	56,000 4:00 p.m. October 11
10/13/2009	WECC	12:48 p.m.	Southeastern Wyoming	Ice	101	35,500 2:34 p.m. October 13
10/13/2009	WECC	3:45 p.m.	Sacramento County	High Winds	90	94,000 5:50 p.m. October 13
10/13/2009	WECC	4:00 p.m.	Northern California	High Winds and Rain	350	859,554 10:30 p.m. October 13
November						
11/12/2009	SERC	6:45 p.m.	Southeastern Virginia, Northeastern North Carolina	Tropical Storm Ida	400	335,000 4:25 a.m. November 14

11/18/2009	WECC	6:15 a.m.	Central Valley, CA	Switching Failure	630	N/A 10:00 a.m. November 18
December						
12/7/2009	WECC	10:00 p.m.	California	Forced Outage Equipment Failure	400	N/A 4:00 a.m. December 08
12/8/2009	WECC	1:00 a.m.	Arizona	Severe Weather	N/A	140,000 11:00 a.m. December 10
12/8/2009	WECC	6:34 a.m.	California	Load Shed/Made Public Appeals	N/A	N/A 12:00 p.m. December 08
12/9/2009	RFC	1:37 p.m.	Ohio	Severe Weather	N/A	48,102 6:30 a.m. December 10
12/10/2009	RFC	5:45 p.m.	Michigan	Severe Weather	N/A	65,562 8:00 a.m. December 12
12/18/2009	RFC	8:00 p.m.	West Virginia, Kentucky, Ohio	Severe Weather	N/A	403,913 9:30 p.m. December 25
12/18/2009	SERC	10:55 p.m.	Western North Carolina	Severe Weather	N/A	47,000 11:15 p.m. December 19

[1] [Estimated values.](#)

[Note: Estimates for 2009 are preliminary.](#)

[Source: Form OE-417, "Electric Emergency Incident and Disturbance Report."](#)